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| **C:\Users\ADMIN\Desktop\j.png** | **JAIPURIA INSTITUE OF MANAGEMENT, INDORE**Post Graduate Diploma in Management (Batch 2023-25) |
| **Course Title: Project Management, (Course Code: 40530)****End-Term Examination, Term - VI (April, 2025)**  |
|  **Time Duration : 2 Hours Total Marks: 40** |

***General Instructions*:**

1. *Answer the questions as directed. The break-up of the marks is given wherever necessary.*
2. *Marks against each question is indicated to its right.*
3. *Answer all the questions of a ‘Section/Question’ at one place in continuation.*
4. *Answers should be brief and to the point.*
5. *Do not write on the question paper except your roll number.*

**SECTION - A**

**Q1. Attempt the following :**

1. **Explain** the importance of term “CPM” in projects execution.
2. **Classify** the “Project Processes” as per PMBOK.
3. **Carryout** the importance of “Communication requirement” in projects.
4. **Appraise** the terms “Fixed price contracts” and “Cost reimbursable contract” in project management.
5. **Explain** the key elements of Work breakdown structure used in project management.

 **(2 x 5 = 10 Marks)**

**Q2.** A fast-growing FMCG company, "QuickBites Ltd.", has allocated a budget of ₹5 Crores for new strategic projects. The company requires projects to be evaluated using Payback Period and Net Present Value (NPV). The company's required rate of return (discount rate) is 10%. Two potential projects remain:

**Project Alpha: "Go Rural" Market Expansion**

**Project Beta: "Factory Efficiency Upgrade"**

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| --- | --- | --- |
|  | **Project Alpha** | **Project Beta** |
| Initial Investment | Rs 5 Cr | Rs 5 Cr |
| Expected Annual Cash flow |  |  |
| Year 1 | Rs 0.5 Cr | Rs 1.2 Cr |
| Year 2 | Rs 1.0 Cr | Rs 1.2 Cr |
| Year 3 | Rs 1.5 Cr | Rs 1.2 Cr |
| Year 4 | Rs 2.0 Cr | Rs 1.2 Cr  |
| Year 5 | Rs 2.5 Cr | Rs 1.2 Cr |

PV Factors @10%: Yr1=0.909, Yr2=0.826, Yr3=0.751, Yr4=0.683, Yr5=0.621

Calculate :

Q 2.1 **Compare** projects based on “Payback Period” method. **(5 Marks)**

 Q2.2 **Propose** which project is viable based on “NPV” calculations. **(5 Marks)**

**SECTION – B**

Q3. Your institute is hosting its annual cultural and sports fest, "Synergy". As part of the core organizing committee, you have been made the lead for organizing the "Inter-Departmental Volleyball Tournament". This involves managing everything from planning the tournament to awarding the winners. The project can be broken down into three main phases: Pre-Tournament Planning & Setup, Tournament Execution (match days), and Post-Tournament Wrap-up.

*High-Level Estimates:* The central fest budget has allocated the following resources specifically for the Volleyball tournament:

* **1.0 Pre-Tournament Planning & Setup:** Total Estimated Time = 40 hours, Total Estimated Budget = ₹25,000 (includes equipment purchase/rental, court booking/preparation, referee fees, printing fixtures)
* **2.0 Tournament Execution:** Total Estimated Time = 12 hours (likely spread over 1-2 days), Total Estimated Budget = ₹15,000 (includes first-aid, refreshments for players/officials, score sheets, minor logistics)
* **3.0 Post-Tournament Wrap-up:** Total Estimated Time = 6 hours, Total Estimated Budget = ₹20,000 (includes prizes/trophies, final payments, report submission)

*Task:*

1. **Create** WBS Structure **(5 Marks)**
2. **Allocate** Time & Cost Estimates **(5 Marks)**

**Q 4** : "BuildFast Constructions" has undertaken a project to construct a community centre. The project network, activities, normal time, normal cost, crash time, and crash cost are given below. The company incurs indirect project costs (like supervision, rentals, utilities) of ₹8,000 per week.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Activity** | **Immediate Predecessor(s)** | **Normal Time (Weeks)** | **Normal Cost (₹)** | **Crash Time (Weeks)** | **Crash Cost (₹)** |
| A | -- | 4 | 50,000 | 3 | 65,000 |
| B | -- | 6 | 80,000 | 4 | 110,000 |
| C | A | 5 | 60,000 | 4 | 72,000 |
| D | A | 3 | 40,000 | 2 | 55,000 |
| E | B, C | 7 | 100,000 | 5 | 136,000 |
| F | D | 4 | 30,000 | 4 | 30,000 |
| G | E, F | 5 | 70,000 | 3 | 100,000 |

**Q 4.1 Identify** the Critical Path(s) and state the expected project duration. **(5 Marks)**

**Q 4.2 Calculate** the crash cost per week for each activity that can be crashed **(5 Marks)**